E.D.I. LTD

(Economic Development Initiatives)

Tanzania Africa RISING Baseline Evaluation Survey (TARBES)

Baseline Survey Data - Basic Information Document,

On Behalf of

IFPRI

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1. INTRODUCTION

1.1. INTRODUCTION

As part of the US government's Feed the Future initiative that aims to address global hunger and food security issues in sub-Saharan Africa, the US Agency for International Development is supporting three multi-stakeholder agricultural research projects under Africa Research In Sustainable Intensification for the Next Generation (Africa RISING - AR) program. The overall aim of the program is to transform agricultural systems through sustainable intensification projects in three regions of Africa:

- Cereal-based Farming Systems in the Guinea Savannah Zone of West Africa covering Northern Ghana and Southern Mali– led by IITA
- Cereal-based Farming Systems in East and Southern Africa covering Tanzania, Tanzania , and (potentially) Zambia – led by IITA
- Crop-livestock systems to improve food security and farm income diversification in the Ethiopian highlands – led by ILRI

The International Food Policy Research Institute (IFPRI) leads an associated project on monitoring and evaluation (M&E) of AR activities and Wageningen University is tasked to conduct farming systems modelling. As part of the M&E activities in Tanzania, IFPRI contracted EDI to conduct a baseline household and community survey in February-April 2014.

Household and community data was collected in Babati, Kongwa, and Kiteto districts in 7 intervention villages, and 18 control villages:

District	Intervention Survey Villages	Control Survey Villages
Babati	Long, Sabilo, Seloto	Dudie, Gidas, Gidewari, Gidngwar, Hallu, Haysum, Marufa, Mer, Shaurimoyo
Kongwa	Chitego, Moleti, Mlali	Laikala, Leganga, Makawa, Mautiya, Ngutoto, Njoge, Vihingo
Kiteto	Njoro	Dosidos, Makame

The survey was conducted with 'baby' farmers in the intervention villages that had been involved in the Africa RISING program. EDI was provided with lists of all beneficiary households in these villages. During the listing exercise, these lists were verified with village officials and many of the beneficiaries were found to be duplicates, from other villages, or non-existent, and therefore the final sample size of beneficiary households was lower than originally planned. This will be discussed in more detail below. Within each intervention village, as well as each counterfactual village, 15 control households were sampled and interviewed alongside the beneficiary households. A community survey and price questionnaire was also conducted with key informants and village leaders in each of the 25 survey villages.

The remainder of this document summarises the preparation and data collection phases of the survey, and describes the data consistency checks and data architecture.

The following supplementary material and documents have been provided alongside this document:

- ✓ Final data for Listing, Household and Community
- ✓ Final surveybe questionnaires
- ✓ Final questionnaire reports (PDF versions of surveybe tools)
- ✓ Africa RISING and Impact Evaluation Beneficiaries _ from IFPRI.xlsx
- ✓ Beneficiary Households - EDI hhid Assignment.xlsx
- ✓ TARBES household lists.xlsx

2. DATA COLLECTION METHOD

All data for this survey were collected using EDI's in-house CAPI software surveybe™. Interviews were administered in the form of electronic survey questionnaires on hand-held computers. Automated routing and a large number of built-in consistency checks allowed the identification of errors and missing fields during the interview, while interviewers still had the opportunity to correct the response with the respondent at the source. Electronic interview files were transmitted to EDI's centralized data processing team on a daily basis using Dropbox. These interview files are encrypted thus interview information could not be accessed by third parties at any point during this project. The data processing team ran additional cross-checks over the data, as it flowed in from the field, and provided instant feedback to the field teams on a continuous basis.

3. QUESTIONNAIRES AND DATA FILE STRUCTURE

The data for all parts of the survey is provided in fully labelled Stata (12 and 13) data sets. The data is stored in several data files (tables), each containing a different module of the original paper questionnaires, and different levels of observation. This Basic Information Document provides basic information on the table content of the questionnaires.

Users are encouraged to use this document as a very general guide to understand the content of the survey questionnaires. It is not a substitute for looking at the Questionnaire Reports (Codebooks) that have been provided alongside the Household and Community data. Users are encouraged to look directly at the Surveybe Questionnaire and the Questionnaire Report for literal question wording or routing. The report includes all question texts, question numbers, interviewer instructions, response list options and rosters as seen in the Surveybe instrument, and is available in Swahili (as used in the field) and English. A list of all inbuilt validation checks are also included at the end of the report.

Note that the variable and table names as seen in the report do not always exactly correspond to the Stata data sets as specific data formatting changes were requested post data collection.

4. PREPARATION ACTIVITIES

4.1. QUESTIONNAIRE DEVELOPMENT AND TRANSLATION

The final paper quantitative tools, as provided by IFPRI, were converted into electronic questionnaires using EDI's data capturing programme, surveybe™. This included the

programming of consistency checks, which are conducted during the interview to reduce errors. An important step in the finalisation of the tools was an intensive desk review whereby the core project staff familiarised themselves with the tools and in close consultation with IFPRI ensured that the instruments included all the necessary elements required for the evaluation. EDI was also responsible for adapting the instruments to the Tanzanian context, and incorporation of other knowledge based on EDIs experience of implementing household surveys in Tanzania.

The instruments were field tested by the core team together with IFPRI. The goal of the field testing was to ensure that the questionnaire as a whole, as well as the individual modules and questions, were capable of capturing all of the information required for the evaluation. It was also important for identifying the need for any additional consistency checks, as well as testing routing, length, and general flow of the questionnaire.

The testing of the Household instrument took place during the week of the 20th January 2014 in Bukoba, Kagera. IFPRI and EDI worked closely to develop the questionnaire during the testing of the instrument. The testing of the community instrument and price questionnaire took place in a non-survey village in Babati, during the week before field start.

IFPRI were responsible for the initial translation of the Household questionnaire. EDI provided IFPRI with excel spreadsheets which contained all English text within the CAPI questionnaire, including question text, labels, response list options, item lists, and interviewer instructions; IFPRI translated these into Swahili, and then sent the sheets back to EDI. Necessary amendments to the translated text were made by EDI during the piloting and testing of the questionnaires.

It was originally agreed that IFPRI would translate the community questionnaire as well however, as the timeline for the community survey was brought forward, EDI decided to do the translation in-house instead.

4.2. MANUALS

IFPRI provided EDI with draft manuals for the Household and Community questionnaires. These were updated and finalised by EDI alongside the questionnaires during pre-testing and training in January-February 2014. EDI also added their standard sections to the manuals.

4.3. TRAINING

Training for the Household survey was held over a three week period. The first two weeks of training took place in Bukoba and the third week (field pilot) took place in Babati, which was the first district to be surveyed. A higher number of people than actually needed were trained in order to provide a pool of candidates from which to select the best candidates from as well as a back-up pool of staff to assure the continuation of the fieldwork in the event of interviewer attrition. Observation of mock interviews as well as written tests helped the survey management team to select the final candidates; this happened at the end of the first two weeks of training, before the teams travelled to Babati.

The training included:

- **Introduction to the survey**: background to Africa RISING program, role of the interviewer, project plan, logistics and HR;
- **Surveying techniques**: how to approach households, behave courteously, and deal with respondents in an interview environment;
- **Questionnaire's concepts**: interpretation of all questions and concepts, including training on definitions and meanings of all agricultural terms;
- **Electronic data entry**: all trainees were already experienced in surveybe, but were given a refresher and an overview of updates to the software;
- **Mock interviews**: all interviewers had the chance to administer mock interviews to a fellow trainee as well as have the interview administered to him or herself to improve their ability to place themselves in the shoes of the respondent;
- **Quality control procedures:** checking and validating data files
- **How to conduct the anthropometric measurements**
- **Selection of interviewers**: overall performance of each team member was assessed by the Research Project Management based on the results of their written and practical tests as well as factor such as timeliness, general working attitude and team work;
- **A comprehensive full scale pilot** took place in Babati, with trainees conducting real interviews in the field (in a non-survey village).

A summary of the training schedule was as follows:

Overview of Training Schedule	
Day 1	Introduction to EDI and the Survey (HR, Activity Plan, Logistics); Basic Survey Techniques, surveybe Training & Introduction to Questionnaire
Day 2 - 8	Detailed Review of Questionnaire
Day 9	Mock Interviews
Day 10 - 12	Outdoor Field Practical & Briefings
Day 13	Final Wrap up and discussions
Day 15- 17	Administration, Preparations and Travel to Field
Day 18 - 19	Field Pilot in Babati
Day 20 - 21	Final Feedback Session, Administration & Rest

During the training phase, the survey tools and manuals were continually updated and revised to incorporate any issues and changes that appeared necessary based on discussions during training and feedback from mock interviews and the pilot. EDI was in continual communication with IFPRI in order to get clarification on certain issues and sign-off on all changes to be made to the tools.

EDI arranged for an agricultural expert (Bukoba Extension Officer) to attend the training in Bukoba for three days. He provided valuable input and helped train on various agricultural terms, as well as how to identify different types of trees and plants (using physical examples).

4.3.1. SUPERVISOR ADMINISTRATION TRAINING

To prepare them for their managerial tasks, all supervisors followed an established EDI field management training module which was administered by EDI's Finance Manager and HR Administrator. The module covered all aspects of field management with regard to Finance, Human Resources and other administrative best practice.

5. LISTING

5.1. FIELD ACTIVITIES

25 villages were selected by IFPRI to be included in the survey, including 18 control villages and 7 action villages. In each of the 25 villages, one kitongoji (sub-village) was to be sampled as a control cluster, and 15 households were to be sampled from each one. EDI conducted listing and sampling of control vitongoji in all 25 villages, while household listing was conducted in 18 control villages and 1 action village. Lists of beneficiary households and vitongoji in action sites were also provided to EDI during the preparation phase, and these lists were verified by EDI listing staff alongside the listing of the 19 villages.

The target sample size of 917 households was provided to EDI prior to listing and was broken down as follows:

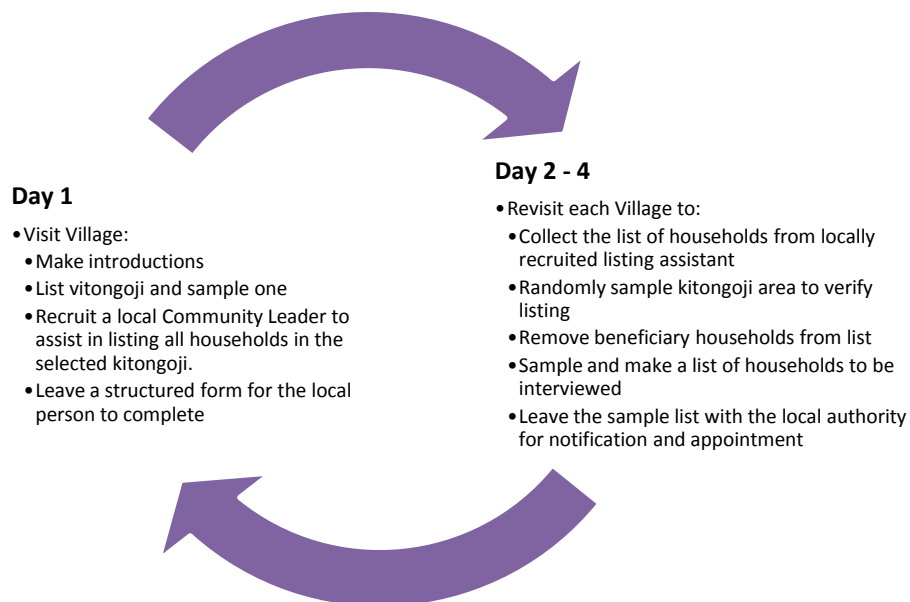| Baseline Survey	
Control Clusters	
Number of Villages	25
Number of Households per Village	15
Total Number of Households	375
Intervention Clusters	
Number of Villages	7
Total Number of beneficiary Households	542
Total Number of Households	917

The listing exercise involved one listing team, consisting of a supervisor and listing assistant, and they received training from the Research Manager before travelling to the survey districts to carry out the listing. Listing and verification took place in all Kongwa villages and Babati control villages in January 2014, prior to survey training. Listing of Babati action villages and all Kiteto villages happened alongside fieldwork in February and March whereby the listing team moved through the villages ahead of the survey team.

The listing and sampling of control households occurred via a 2-stage procedure, over multiple visits, with the help of local listing assistants. Upon the first visit to the village, all vitongoji within the village were listed and one kitongoji was then sampled to be listed at the household level. A local assistant was then recruited and trained on how to carry out the listing exercise. During the following visits, the team would verify the listing and run the sampling of households in field.

The listing team members were responsible for the following when visiting each village:

- listing all vitongoji within the village and sampling one of them using a random number table;
- recruiting a local community leader to do the listing of households within the selected kitongoji;
- obtaining a complete list of households from the community leader and ensuring its completeness and accuracy;
- identifying any beneficiary households that may be in the list, and removing them before sampling;
- sampling a total of 20 households from the kitongoji (sample of 15 + 5 replacement households) using random number tables;
- Informing the local authority which households had been sampled.

Listing happened over 2-4 day cycles as follows:

Day 1

- Visit Village:
- Make introductions
- List vitongoji and sample one
- Recruit a local Community Leader to assist in listing all households in the selected kitongoji.
- Leave a structured form for the local person to complete

Day 2 - 4

- Revisit each Village to:
- Collect the list of households from locally recruited listing assistant
- Randomly sample kitongoji area to verify listing
- Remove beneficiary households from list
- Sample and make a list of households to be interviewed
- Leave the sample list with the local authority for notification and appointment

Once the 20 households had been selected, the list with accompanying information was then handed over to HQ and IDs were assigned. The information was input into surveybe, exported into Stata and .csv format, and then incorporated into the household questionnaire as reference data.

5.2. BENEFICIARY LIST VERIFICATION

As mentioned above, the listing activities involved verifying the lists of beneficiary households, which were provided to EDI during the preparation stage of the survey. The original target sample size of beneficiaries was 542 and these households were spread across the 7 action sites as follows:

Original Beneficiary Sample Sizes:

Action Villages	Number of Beneficiary Households
Sabilo	*162*
Long	*134*
Seloto	*227*
Moleti	*7*
Mlali	*6*
Chitego	*2*
Njoro	*4*
Total	*542*

The complete list of beneficiary households, as provided by IFPRI, can be found in the following file: ***Africa RISING and Impact Evaluation Beneficiaries _ from IFPRI.xlsx.*** EDI assigned household IDs to each listed beneficiary household, which can be found in the file: ***Beneficiary Households - EDI hhid Assignment.xlsx***. Note that the final column, *OriginalNumber_IFPRI,* corresponds to the numbering in column A of each tab in the file provided by IFPRI.

The verification exercise involved showing the list of beneficiary households to village chiefs and asking them to confirm the existence of each one. Through this exercise it was established that a total of 104 of these households were either:

- part of the same household (Members of the same household were sometimes listed as two separate households, therefore had to be merged),
- not known to the village leader (there were 7 unrecognised households in two action villages, whereby the village leaders were not aware of how these people got onto the village lists. It is thought that these were people from other villages who happened to be at the listing meetings),
- not living in the village (non-permanent residents, e.g. students doing field work in Long village, were listed as households and had since left the village), or
- an institution.

A summary by village is as follows:

Village	Merged	Unknown	Not living in village	Moved out of village	Institution	Total not found
Long	*20*	*4*	*12*	*2*	*0*	*38*
Sabilo	*19*	*0*	*0*	*2*	*1*	*22*
Seloto	*36*	*3*	*0*	*2*	*1*	*42*
Chitego	*1*	*0*	*0*	*0*	*0*	*1*
Mlali Iyegu	*0*	*0*	*0*	*0*	*0*	*0*
Moleti	*0*	*0*	*0*	*0*	*0*	*0*
Njoro	*0*	*0*	*0*	*1*	*0*	*1*
Total	*76*	*7*	*12*	*7*	*2*	*104*

Details of the status of each beneficiary household provided in the original list can be found in the accompanying excel document - **TARBES household lists.xlsx**. Note that during the actual fieldwork, an additional 3 beneficiary households could not be interviewed for other reasons. Details of this are summarised below, under the Household Survey interview results section.

5.3. DATA CONTENT & DESCRIPTIONS OF DATA TABLES

The listing data includes all 25 villages and vitongoji. As noted above, upon visiting each village, the listing team first listed all vitongoji and then sampled one. In 18 control villages and 1 action village, household listing for the sampled control kitongoji was conducted, and households were then sampled from these lists. In the remaining 6 action villages, households were sampled from lists already provided by IFPRI, however verification of these lists was also required by EDI.

The data comprises of 4 tables as follows:

Table	IDs	Description
Village.dta	*regionid, districtid, wardid, villageid*	One observation per Village; *villageid* uniquely identifies each observation; Villages to be visited were pre-specified by IFPRI; Ward information was collected by ID during the listing exercise;
Kitongoji.dta	*villageid, kitongojiid*	One observation per kitongoji within each Village; the table is a sub-table of Village.dta; *villageid* and *kitongojiid* together uniquely identify each observation; *sampledkitongoji* indicates the kitongoji that was sampled within each village (one per village); *totalhhlisted* is the total number of households listed in the sampled *kitongoji*; *totbene* refers to the number of beneficiary households identified within the listed households, which were to be excluded before sampling
Household.dta	*villageid, kitongojiID, HHID*	One observation per control household sampled from each sampled kitongoji; the table is a sub-table of Kitongoji.dta; *villageid*, *kitongojiid* and *HHID* together uniquely identify each observation; 15 households were sampled from each kitongoji, plus 5 replacement households, i.e. a total of 20 households per kitongoji; the household lists were a combination of EDI listing and lists provided by IFPRI (and verified by EDI); *samplenumber* refers to the number assigned to each household while running the sampling exercise on paper
SamplingWeights.dta	*villageid*	One observation per village; *villageid* uniquely identifies each observation; the table includes the sampling weights (*sweight*) to be assigned to the control households in the household data

Sampling weights for control households were calculated using the following formula:

$$1/totvit*1/eligiblehh*sampledhh$$

Where *totvit* is the total number of vitongoji (sub-villages) in each village, *eligiblehh* is the total number of eligible households to be sampled from within each kitongoji (calculated as total households listed minus number of beneficiaries in the kitongoji), and *sampledhh* is the number of households sampled from each kitongoji (15).

Note that there were two households in Long (the kitongoji sampled from Long village), which were not identified as beneficiary households prior to sampling - they ended up being sampled and were only found to be beneficiary households during Household fieldwork. They were subsequently replaced by two replacement households in this kitongoji. These two beneficiary households however <u>have</u> been included in the variable *totbene* in the data and therefore were excluded from the total number of eligible households in the calculation of the sampling weight variable.

6. HOUSEHOLD SURVEY

6.1. FIELD WORK SUMMARY

The household interviews began on 24th February 2014 and ended on 31st March 2014. This was earlier than originally planned and was due to the reduction in sample size of beneficiary households. The field team consisted of 3 supervisors each leading a team of 7 interviewers. However, due to the uneven spread of beneficiary households in some action villages, the teams were sometimes re-grouped and allocated to villages based on concentration of households. Interviewers completed an average of 1.5 interviews per day, with some households being visited twice in one day, or on two consecutive days, in order to complete the interview.

The table below summarises the visit dates and number of completed interviews by village.

Complete Interviews by Village

District	Village	Village Entry Data	Village Exit Date	Beneficiary Households Interviewed	Control Households Interviewed	Total Households Interviewed
Babati	Seloto	24-Feb-14	10-Mar-14	183	15	198
Babati	Merr*	24-Feb-14	27-Feb-14	-	15	15
Babati	Shaurimoyo	24-Feb-14	27-Feb-14	-	15	15
Babati	Gidas	03-Mar-14	06-Mar-14	-	15	15
Babati	Haysum	03-Mar-14	06-Mar-14	-	15	15
Babati	Long	06-Mar-14	12-Mar-14	95	15	110
Babati	Hallu	07-Mar-14	08-Mar-14	-	15	15
Babati	Sabilo	11-Mar-14	22-Mar-14	140	15	155
Babati	Giding'war	11-Mar-14	12-Mar-14	-	15	15
Babati	Gidewar	13-Mar-14	14-Mar-14	-	15	15
Babati	Matufa	13-Mar-14	14-Mar-14	-	15	15
Kiteto	Makame	17-Mar-14	18-Mar-14	-	15	15
Babati	Dudie	18-Mar-14	19-Mar-14	-	15	15

Kiteto	Dosidosi	*19-Mar-14*	*20-Mar-14*	*-*	*15*	*15*
Kiteto	Njoro	*21-Mar-14*	*22-Mar-14*	*3*	*15*	*18*
Kongwa	Chitego	*24-Mar-14*	*25-Mar-14*	*1*	*15*	*16*
Kongwa	Moleti	*24-Mar-14*	*26-Mar-14*	*7*	*15*	*22*
Kongwa	Vihingo	*24-Mar-14*	*25-Mar-14*	*-*	*15*	*15*
Kongwa	Mlali Iyegu	*26-Mar-14*	*27-Mar-14*	*6*	*15*	*21*
Kongwa	Ngutoto	*26-Mar-14*	*27-Mar-14*	*-*	*15*	*15*
Kongwa	Laikala	*27-Mar-14*	*28-Mar-14*	*-*	*15*	*15*
Kongwa	Leganga	*28-Mar-14*	*29-Mar-14*	*-*	*15*	*15*
Kongwa	Makawa	*28-Mar-14*	*29-Mar-14*	*-*	*15*	*15*
Kongwa	Mautia	*29-Mar-14*	*31-Mar-14*	*-*	*15*	*15*
Kongwa	Njoge	*31-Mar-14*	*31-Mar-14*	*-*	*15*	*15*
Total				*435*	*375*	*810*

*Note: there was one household in Merr village (Babati district) that was only half complete as the household refused to take part in the second visit interview, due to the family not wanting strangers in the household prior to the marriage of a daughter. This occurred on the second day of fieldwork, at which point the teams were very concerned about the length of the interviews, and therefore the household was not replaced.

6.1.1. BENEFICIARY HOUSEHOLDS NOT INTERVIEWED

As seen in the table above, the final number of complete interviews was 810 households. This is 107 households below the original target of 917 and was primarily due to the original beneficiary lists containing a number of issues such as duplicate households, unknown households, households that had left the village, or households that were never living in the village. There were three beneficiary households which had incomplete interviews due to other reasons, namely temporarily absent, not engaging in agriculture (therefore not eligible for interview), and refusal. A summary of non-interviewed beneficiary households is summarised in the table below. Details of the status of each beneficiary household provided in the original list can be found in the accompanying excel document - ***TARBES household lists.xlsx.***

Non-interviewed Beneficiary Households

Village	Merged	Unknown	Not living in village	Moved out of village	Temporarily absent	Does not engage in agriculture	Refused	Institution	Total not interviewed
Long	*20*	*4*	*12*	*2*	*1*	*0*	*0*	*0*	*39*
Sabilo	*19*	*0*	*0*	*2*	*0*	*0*	*0*	*1*	*22*
Seloto	*36*	*3*	*0*	*2*	*0*	*1*	*1*	*1*	*44*
Chitego	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
Mlali Iyegu	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Moleti	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Njoro	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*
Total	*76*	*7*	*12*	*7*	*1*	*1*	*1*	*2*	*107*

There were a total of 21 incomplete interviews amongst the control households. All of these were replaced with 1 of the replacement households sampled for each kitongoji, as described above. The reasons for incomplete interviews are summarised in the table below. Details of the status of each control household sampled can be found in the accompanying excel document - ***TARBES household lists.xlsx.***

Incomplete Interviews / Reasons for Replacement by Village:

Village	# Households Replaced	Reasons for Replacement
Long	*2*	*Appeared in beneficiary lists*
Seloto	*4*	*1 Unknown; 3 Not living in village*
Gidewar	*2*	*1 Refusal; 1 Temporarily absent*
Giding'war	*1*	*Left the village*
Hallu	*1*	*Does not engage in agriculture*
Haysum	*1*	*Refusal*
Matufa	*2*	*1 Does not engage in agriculture; 1 migrated out of ward*
Moleti	*1*	*Left the village*
Laikala	*2*	*1 Left the district; 1 Temporarily absent*
Makawa	*1*	*Temporarily absent*
Ngutoto	*1*	*Refusal*
Njoro	*3*	*2 Refusals; 1 Temporarily absent*
Total	*21*	

There is a *Replacement* variable within the Household data (populated for replacement households only), which is equal to the Household ID of the household being replaced. The last 2 digits of the Household ID indicates whether the households is a replacement or not: if the last 2 digits are 16-20, this indicates a replacement household; if the last 2 digits are 15 or below then this is a non-replacement household.

6.2. QUALITY CONTROL/DATA CLEANING

Once in the field, a number of quality monitoring activities were performed:

1. Interviewers were the first defence against errors and as noted above they were trained in detail on the survey tools and interviewer best-practice. To ensure that errors/inconsistencies were spotted immediately, they used the survey software's in-built consistency checks:
   a. *At the end of each screen,* the interviewer ran the automated consistency checks which highlighted any issues prior to moving on;
   b. *At the end of the questionnaire,* the interviewer would run a full consistency check on the whole questionnaire and any errors/inconsistencies were corrected immediately whilst still sitting with the respondent. Where a response was identified as an inconsistency but was in fact correct, the interviewer added a comment in the system to explain the reasons.

2. At the end of each day the supervisor uploaded all data from the interviewers UMPCs and would:

   a. *Validate* - Run full validation checks on all questionnaires; and,

   b. Conduct visual checks on all questionnaires.

   Where errors were found, the interview file was returned to the interviewer for correction.

3. Finally, the Data Processing Co-ordinator (based in the EDI headquarters) conducted another layer of quality control checks after the data had been send to them by the supervisors. The Data Processing Co-ordinator also exported the data to Stata. Data Processing checking is explained further below under *5.3 Data Management and Flow*.

4. The Data Processing Co-ordinator visited Babati district from 10/03/2013 - 19/03/2014 to generally monitor field work progress and particularly to conduct additional quality checks including:

   - Direct observations of interviews
   - Re-interviews
   - Checking of supervisor financial records
   - Checking and collection of consent forms
   - Briefing and discussion with interviewers
   - Briefing and discussion with supervisors

5. Following the end of fieldwork, from 2nd-4th April, the supervisors conducted revisit interviews with 20 households in Kongwa and Kiteto. A subset of questions from the following sections were asked: Household member roster, Anthropometry; Livestock; Housing; Assets and Shocks. The data was then cross-checked with the actual interview data.

The findings of these quality monitoring activities were used to provide feedback to the teams, focussing on areas where errors/inconsistencies were frequently occurring.

6.3. DATA MANAGEMENT AND FLOW

After the data had been cross-checked in the field, the supervisors transmitted their team's interview files to the EDI Headquarters. At this point, each file was opened by the data processing team and the full consistency check was run once again. The data was also checked on an ongoing basis using another layer of secondary checks in STATA. The DP team collected interview files from all teams and 'exported' them through the surveybe designer interface, into a single dataset. They set up a 'checking do-file' in STATA, which was run over the data at the aggregate level. This happened on a continuous and daily basis as the data flowed in from the field.

The do-file returned a list of errors, each one being attached to a particular household, interviewer, as well as error description/code. Communication by DP to field teams then happened as follows:

- The HQ review sheet was sent to the field teams once or twice per week;
- Once the supervisor had the latest HQ review they would give out the relevant sections to their team;
- Team members would then communicate to DP in person or over the phone once they had had time to review the queries;
- DP would then discuss the issues with interviewers and all necessary updates were made to the relevant interview files.

Following the end of fieldwork, the data processing team continued to check the data and fix the remaining inconsistencies. The data manager and team leader also assisted in this process by doing an additional layer of final checks and communicating these to the data processing team, who in turn followed up with relevant fieldworkers.

6.4. ANTHROPOMETRY

As part of the survey, measurements for weight, height, and upper arm circumference for children, and weight and height for women, were collected. Details of the measurements are as below:

- **Weight:** Seca scales were used to take the weight of women 15 to 49 years and children 0-59 months old.
- **Height:** Height measurements for both women 15 to 49 years and children 0-59 months old were recorded. The Seca 213 stadeometer measuring rod was used for adults and children, and the Seca 210 measuring mat was used for babies. The anthropometric data indicates whether the child was measured standing up or lying down in each instance.
- **MUAC:** MUAC is the circumference of the left upper arm, measured at the mid-point between the tip of the shoulder and the tip of the elbow. EDI used standard MUAC tapes that had been used previously in other surveys.

All measurements were taken and recorded at least twice in the surveybe tool. An in-built consistency check was built into the tool such that if the two measurements differed by a certain amount, a third measurement field was automatically enabled and the interviewer was required to take a third reading. The consistency check opened up the third field:

- If first and second weight measurement differed by more than 0.1kg (for women and children)
- If first and second height measurement differed by more than 0.5cm (for women and children)
- If first and second arm circumference measurement differed by more than 5mm (for children)

Height and weight validation checks were also included in the electronic survey tool, which compared the child measurements with minimum and maximum values based on their age and gender. The minimum and maximum values were provided by IFPRI to EDI and were coded into the surveybe instrument.

6.4.1. ANTHROPOMETRY REVISITS

During fieldwork it was noted that many women who were eligible for the anthropometry section could not be measured as they were not at home at the time of interview. As fieldwork finished earlier than planned, it was possible to send a small sweeping team back to the field to revisit some of these households and measure the relevant women. Due to the large sample size in Babati, this was the most affected district and so was chosen to be revisited. 192 households across 12 villages in Babati were revisited between 13th April - 18th April and 130 women, who had previously been unavailable, were successfully measured. In households where there were also children that had previously not been available for measuring, an attempt was made to measure them during the revisit too. A total of 47 children were successfully measured during the revisit exercise. In addition, any other previous anthropometry measurements in the households were verified, and corrected if necessary.

A variable indicating the date on which the anthropometric measurements were taken (or verified) for each woman or child is included in the data: variable name 'dateanthro' in *sectionT.dta* and *sectionU.dta*.

6.5. FIELDWORK CHALLENGES

6.5.1. DUPLICATE NAMES IN BENEFICIARY LISTS

As noted above, there were a number of duplicates in the beneficiary lists, which meant that extra verification work need to be done in control villages. However, not all issues could be identified during the listing stage and led to further challenges during actual fieldwork, including the following:

- Some households were listed under the names of other household members and not the household head which made it hard to track the household. More time was dedicated to tracking these households, however consulting the younger population within the community led to success in most cases.
- Duplicate names in the lists sometimes resulted in two interviewers being assigned to the same household. In some cases interviewers arrived at the household only to discover that they had already been interviewed.

6.5.2. WEATHER

As data collection took place during rainy season, this caused challenges in moving between households which were far apart. Muddy roads sometimes caused delays to fieldwork, and interviews started later in the day than planned.

6.5.3. AVAILABILITY OF RESPONDENTS

As the survey was administered during the farming season, most respondents were busy working on their farms, especially during morning hours, and in some cases several kilometres from their residences. Respondents sometimes had to be tracked down at their farms, particularly when no adult member was found at the house.

6.5.4. FREEMASONRY RUMOURS

As experienced in some other surveys in recent months, there were rumours that the survey activities were related to freemasonry. Whenever possible, those who were suspicious were provided with more information concerning EDI's activities, which helped to ease the pressure. It was observed that the people who spread these rumours were mostly those who did not participate in the interviews and therefore were not aware of what was communicated in the consent notes, or was asked in the interviews. In the end, the freemasonry rumours did not affect the fieldwork other than by causing anxiety and delays.

6.1. QUESTIONNAIRES AND DATA FILE STRUCTURE

The Household survey data includes 810 household interviews.

The dataset comprises of 31 tables, which correspond to the different modules of the original paper questionnaire. The tables are in long format. Also included is a Translation and Comments table, as well as two 'visit' tables. The Translation table provides a log of all string variables, comments and other specify values which were translated by the data processing team. The Comments table contains all comments relating to any question in the dataset. The table name and variable to which a comment corresponds are identified within the comments table. Comments can be merged to the relevant observation in a table by using the values of the table identifiers. The 'visit' tables - HHVisits1.dta and HHVisits2.dta - are also additional tables to the main data, which detail time, date and availability of respondent, for each visit to each household. Note that households that were interviewed in one sitting will not appear in HHVisits2.dta.

Each table includes a unique household identifier (hhid) which enables them to be linked back to the main household level table, *interview.dta*. The main table includes the following identifiers:

- *a1: Unique region identifier corresponding to NBS codes.*
- *a2: Unique district identifier corresponding to NBS codes.*
- *a3: Unique ward identifier corresponding to NBS codes.*
- *a4: Unique village identifier, which was generated by EDI. It is a 3-digit code with the first digit corresponding to the district ID.*
- *hhid: Unique household identifier, which was generated by EDI. It is a 6-digit code with the first 3 digits corresponding to village ID. The last 3 digits indicate whether the household is a beneficiary or control household - numbers 100 and above are beneficiary households, and numbers 001-020 are control households. For beneficiary households, the final 3 digits were assigned to each household at the beginning of the project by EDI, and are unique for each beneficiary household within each village. For control households, the numbers correspond to the order in which the household was sampled within each village. IDs 001-015 are for the first 15 sampled households, and IDs 016-020 are replacement households.*

Household Survey Data Tables

	Table	IDs	Description
1	interview.dta	*a1 (Region ID), a2 (District ID), a3 (Ward ID), a4 (Village ID), hhid*	One observation per household; hhid uniquely identifies each observation; this table contains information regarding each interview such as date, time, and other visit details.
2	confidential_hh.dta	*hhid*	One observation per household; this table includes confidential household information including GPS co-ordinates, individual names and contact details; observations can be linked to the main interview table by matching on hhid.
3	confidential_hhmem.dta	*hhid, memid*	One observation per household member within each household; the table is a sub-table of interview.dta; hhid and memid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes all household member names, which should be kept confidential and separate from the public data sets.
4	filter.dta	*hhid*	One observation per household; this table includes household level variables, including n3 which is a filter variable for section N (only households with n3=Yes will appear in sectionN.dta); observations can be linked to the main interview table by matching on hhid.
5	sectionB.dta	*hhid, memid*	One observation per household member within each household; the table is a sub-table of interview.dta; hhid and memid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes characteristics of members of the household.

6	sectionC.dta	hhid, memid	One observation per household member within each household; the table is a sub-table of interview.dta; hhid and memid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; observations can be linked to sectionB.dta by matching on hhid and memid; the table includes household labor information at the household member level; only household members that are 7 years or older, and that have lived in the household for 3 or more years, are included in this table.
7	sectionD.dta	hhid, memid	One observation per household member within each household; the table is a sub-table of interview.dta; hhid and memid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; observations can be linked to sectionB.dta by matching on hhid and memid; the table includes health information at the household member level; only household members that have lived in the household for 3 or more years, are included in this table; sections T and U (woman and child anthropometry) from the original paper questionnaire are included in this table.
8	sectionE.dta	hhid, parcelid	One observation per parcel within each household; the table is a sub-table of interview.dta; hhid and parcelid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes details of each parcel used by the household.
9	sectionF.dta	hhid, plotid	One observation per plot within each parcel within each household; the table is a sub-table of interview.dta; hhid and plotid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; variable f2a refers to the parcel which the plot belongs to such that the observations can be linked to sectionE.dta (Parcel table) by matching f2a to parcelid together within each household; there may be multiple plots within a parcel; the table includes details of soil conservation at the plot level.

10	sectionG1.dta	*hhid, cropid*	One observation per crop within each plot within each household; the table is a sub-table of interview.dta; hhid and cropid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; variable g1_3 refers to the ID of the plot which the crop belongs to and variable g1_2 refers to the ID of the parcel which the plot and crop belong to; the observations can be linked to sectionF.dta (Plot table) by matching g1_3 to plotid and g1_2 to f2a within each household; the observations can be linked to sectionE.dta (Parcel table) by matching g1_2 to parcelid within each household; there may be multiple crops within each plot; note that g1_4 refers to crop name and the same crop may appear multiple times within a parcel, but in different plots; in cases where the same crop appears more than once within a particular plot, this indicates multiple planting seasons - the variable plantingseasonid uniquely identifies each season (no households reported more than two planting seasons for a crop); the table includes details of crop production at the plot level.
11	sectionG2.dta	*hhid, cropid*	One observation per crop within each plot within each household; the table is a sub-table of interview.dta; hhid and cropid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; variable g2_3 refers to the ID of the plot which the crop belongs to and variable g2_2 refers to the ID of the parcel which the plot and crop belong to; the observations can be linked to sectionF.dta (Plot table) by matching g2_3 to plotid and g2_2 to f2a within each household; the observations can be linked to sectionE.dta (Parcel table) by matching g2_2 to parcelid within each household; there may be multiple crops within each plot; note that g2_4 refers to crop name and the same crop may appear multiple times within a parcel, but in different plots; in cases where the same crop appears more than once within a particular plot, this indicates multiple planting seasons - the variable plantingseasonid uniquely identifies each season (no households reported more than two planting seasons for a crop); the table can be linked directly to sectionG1.dta on hhid and cropid however crops classified as 'Fallow' (g1_4=71), 'Pasture/grazing' (g1_4=72), 'Natural trees' (g1_4=75) or 'Other uses' (g1_4=79), are excluded from sectionG2.dta; the table includes information on crop level input costs within each plot.

| 12 | sectionG3.dta | *hhid, cropid* | One observation per crop within each plot within each household; the table is a sub-table of interview.dta; hhid and cropid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; variable g3_3 refers to the ID of the plot which the crop belongs to and variable g3_2 refers to the ID of the parcel which the plot and crop belong to; the observations can be linked to sectionF.dta (Plot table) by matching g3_3 to plotid and g3_2 to f2a within each household; the observations can be linked to sectionE.dta (Parcel table) by matching g3_2 to parcelid within each household; there may be multiple crops within each plot; note that g3_4 refers to crop name and the same crop may appear multiple times within a parcel, but in different plots; in cases where the same crop appears more than once within a particular plot, this indicates multiple planting seasons - the variable plantingseasonid uniquely identifies each season (no households reported more than two planting seasons for a crop); the table can be linked directly to sectionG1.dta on hhid and cropid however crops classified as 'Fallow' (g1_4=71), 'Pasture/grazing' (g1_4=72), 'Natural trees' (g1_4=75) or 'Other uses' (g1_4=79), are excluded from sectionG3.dta; the table includes information on labour input at the crop level within each plot. |
| 13 | sectionG4.dta | *hhid, g4_1* | One observation per crop type within each household; this table is at the crop level, and not the plot/crop level as in tables G1-G3 above; the table is a sub-table of interview.dta; hhid and g4_1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on seed inputs at the crop level within each household; only crops classified under codes 11, 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 31, 32, 33, 34, 35, 37, 38, 41, 42, 43, 44, 45, 46, 50, 61, 63, 65 and 66 are included in this table, and the list is filtered further at the household level according to the crops listed as being planted in section G1. |

14	sectionH.dta	*hhid, h2*	One observation per crop type within each household; this table is at the crop level, and not the plot/crop level as in tables G1-G3 above; the table is a sub-table of interview.dta; hhid and h2 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on crop sales at the crop level within each household; all crops listed as being planted by the household in G1 are included in this table, except for crops classified as 'Fallow' (g1_4=71), 'Pasture/grazing' (g1_4=72), 'Natural trees' (g1_4=75) or 'Other uses' (g1_4=79).
15	sectionI.dta	*hhid, i2*	One observation per crop type within each household; this table is at the crop level, and not the plot/crop level as in tables G1-G3 above; the table is a sub-table of interview.dta; hhid and i2 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on crop storage at the crop level within each household; only crops classified under codes 11, 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 42, 43, 45, 46, 61, 63, 65 and 66 are included in this table, and the list is filtered further at the household level according to the crops listed as being planted in section G1.
16	sectionJ1.dta	*hhid, j1_2*	One observation per animal type within each household; there are exactly 21 observations per household; the table is a sub-table of interview.dta; hhid and j1_2 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on livestock ownership at the household level.
17	sectionJ2.dta	*hhid, j2_2*	One observation per animal group within each household; there are exactly 3 observations per household; the table is a sub-table of interview.dta; hhid and j2_2 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on livestock feed at the household level.

18	sectionK.dta	*hhid, k1*	One observation per activity within each household; there are exactly 4 observations per household; the table is a sub-table of interview.dta; hhid and k1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on agricultural-related problems and coping strategies at the household level.
19	sectionL1.dta	*hhid, l1*	One observation per information source within each household; there are exactly 6 observations per household; the table is a sub-table of interview.dta; hhid and l1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on agricultural-related information sources at the household level.
20	sectionL2.dta	*hhid*	One observation per household; hhid uniquely identifies each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on local farmer groups and the Africa RISING project the household level.
21	sectionM.dta	*hhid, m1*	One observation per other income activity within each household; there are exactly 11 observations per household; the table is a sub-table of interview.dta; hhid and m1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on other income generating activity at the household level.
22	sectionN.dta	*hhid, n4*	One observation per input type within each household; there are exactly 6 observations per household; the table is a sub-table of interview.dta; hhid and n4 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; only households who answered 'Yes' to n3 in filter.dta are included in this table; the table includes information on crop input or equipment received on credit at the household level.

23	**sectionO1.dta**	*hhid*	One observation per household; hhid uniquely identifies each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on Housing at the household level.
24	**sectionO2.dta**	*hhid, assetid*	One observation per asset type within each household; there are exactly 37 observations per household; the table is a sub-table of interview.dta; hhid and assetid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on household and farm assets at the household level.
25	**sectionO3.dta**	*hhid, serviceid*	One observation per serviceid within each household; there are exactly 10 observations per household; the table is a sub-table of interview.dta; hhid and serviceid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on access to services at the household level.
26	**sectionP.dta**	*hhid*	One observation per household; hhid uniquely identifies each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on welfare and food security at the household level.
27	**sectionQ.dta**	*hhid, consumptionid*	One observation per food item within each household; there are exactly 81 observations per household; the table is a sub-table of interview.dta; hhid and consumptionid together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on food consumption at the household level.

28	**sectionR1_month.dta**	*hhid, r1_1*	One observation per non food item within each household; there are exactly 26 observations per household; the table is a sub-table of interview.dta; hhid and r1_1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on monthly non food expenditure at the household level.
29	**sectionR1_week.dta**	*hhid, r1_1*	One observation per non food item within each household; there are exactly 3 observations per household; the table is a sub-table of interview.dta; hhid and r1_1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on weekly non food expenditure at the household level.
30	**sectionR2_1.dta**	*hhid, r2_1*	One observation per non food item within each household; there are exactly 33 observations per household; the table is a sub-table of interview.dta; hhid and r2_1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on yearly non food expenditure at the household level.
31	**sectionS.dta**	*hhid, s1*	One observation per shock type within each household; there are exactly 22 observations per household; the table is a sub-table of interview.dta; hhid and s1 together uniquely identify each observation; observations can be linked to the main interview table by matching on hhid; the table includes information on shocks experienced at the household level.

6.2. KNOWN ISSUES IN THE HOUSEHOLD DATA

- Household with hhid 111003 refused to take part in the second visit interview. Modules K-S are therefore incomplete for this household.
- Women anthropometry measurements are incomplete for the following: hhid 101012, memid 2 and hhid 101177, memid 2. Both households were revisited during the

anthropometry revisit exercise however the relevant household members could not be found.

- The following parcels were not recorded in the plot rosters in these households: hhid 101186 / parcelid 1; hhid 102204 / parcelid 3; hhid 103136 / parcelid 1; hhid 103136 / parcelid 2; hhid 103189 / parcelid 1; hhid 304008 / parcelid 1; hhid 307001 / parcelid 2; hhid 307003 / parcelid 1. All households were phoned back but could not be reached using the phone numbers provided.

7. COMMUNITY SURVEY

7.1. FIELDWORK SUMMARY

The Community survey ran alongside the household survey and was conducted in each of the 25 villages. The tool was piloted and updated during the first week of the Household Survey and the first live interview was conducted on 27th March. The community interviews were conducted with a group of village representatives and were led by the team supervisors. The supervisor was also responsible for collecting food price and unit information from local shops and market places and this was done on the same day as the community interview in each village. The following table summarises the dates of the community and market price surveys in each village:

District	Village	Date of Community Survey
Babati	Shaurimoyo	*27-Feb-14*
Babati	Mer	*27-Feb-14*
Babati	Seloto	*05-Mar-14*
Babati	Haysum	*05-Mar-14*
Babati	Gidas	*05-Mar-14*
Babati	Hallu	*08-Mar-14*
Babati	Long	*08-Mar-14*
Babati	Gidngwar	*12-Mar-14*
Babati	Matufa	*14-Mar-14*
Babati	Gidewari	*14-Mar-14*
Kiteto	Makame	*18-Mar-14*
Babati	Sabilo	*19-Mar-14*
Babati	Dudie	*19-Mar-14*
Kiteto	Njoro	*19-Mar-14*
Kiteto	Dosidos	*21-Mar-14*
Kongwa	Chitego	*24-Mar-14*
Kongwa	Mlali-Iyegu	*25-Mar-14*
Kongwa	Ngutoto	*25-Mar-14*
Kongwa	Moleti	*26-Mar-14*
Kongwa	Leganga	*27-Mar-14*
Kongwa	Njoge	*27-Mar-14*
Kongwa	Laikala	*27-Mar-14*
Kongwa	Vihingo	*29-Mar-14*
Kongwa	Mautiya/Mautia	*29-Mar-14*
Kongwa	Makawa	*31-Mar-14*

7.2. QUESTIONNAIRES AND DATA FILE STRUCTURE

The Community survey data includes 25 completed community interviews.

The dataset comprises of 16 tables, which correspond to the different modules of the original paper questionnaire. The tables are in long format. Also included is a Translation and Comments table. The Translation table provides a log of all string variables, comments and other specify values which were translated by the data processing team. The Comments table contains all comments relating to any question in the dataset. The table name and variable to which a comment corresponds are identified within the comments table. Comments can be merged to the relevant observation in a table by using the values of the table identifiers.

Each table includes a unique village identifier (villageid) which enables them to be linked back to the main village level table, sectionCA.dta.

Community Survey Data Tables

	Table	IDs	Description
1	**sectionCA.dta**	*ca1, ca2, ca3, villageid*	One observation per village; villageid uniquely identifies each observation; this is the main interview table and contains information regarding each interview such as date, time and GPS co-ordinates.
2	**sectionCB.dta**	*villageid, informantid*	One observation per informant within each village; the table is a sub-table of sectionCA.dta; villageid and informantid together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes details of informants that took part in the interview.
3	**confidential.dta**	*villageid, informantid*	One observation per informant within each village; the table is a sub-table of sectionCA.dta; villageid and informantid together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes informant names, which should be kept confidential and separate from the public data sets.

4	**sectionCC.dta**	*villageid, cc1*	One observation per basic service within each village; there are exactly 20 observations per village; the table is a sub-table of sectionCA.dta; villageid and cc1 together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on access to basic services at the village level.
5	**sectionCD1.dta**	*villageid, cd1*	One observation per agricultural activity within each village; there are exactly 10 observations per village; the table is a sub-table of sectionCA.dta; villageid and cd1 together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on agricultural labor and extension services at the village level.
6	**sectionCD2.dta**	*villageid*	One observation per village; villageid uniquely identifies each observation; observations can be linked to the main interview table by matching on villageid; the table contains information on child labour and agricultural problems and strategies at the village level.
7	**sectionCE1.dta**	*villageid, ce1a*	One observation per land use category within each village; there are exactly 6 observations per village; the table is a sub-table of sectionCA.dta; villageid and ce1a together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on proportion of land allocated for different uses within each village.
8	**sectionCE2.dta**	*villageid, ce2a*	One observation per land use category within each village; there are exactly 5 observations per village; the table is a sub-table of sectionCA.dta; villageid and ce2a together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on proportion of cultivable land allocated for different uses within each village.

9	sectionCE3.dta	*villageid*	One observation per village; villageid uniquely identifies each observation; observations can be linked to the main interview table by matching on villageid; the table contains information on land ownership issues at the village level.
10	sectionCE4.dta	*villageid, ce11a*	One observation per land related event within each village; there are exactly 3 observations per village; the table is a sub-table of sectionCA.dta; villageid and ce11a together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on major land related events at the village level.
11	sectionCF.dta	*villageid*	One observation per village; villageid uniquely identifies each observation; observations can be linked to the main interview table by matching on villageid; the table contains information on demographics and land at the village level.
12	sectionCG1.dta	*villageid, cg1*	One observation per water source within each village; there are exactly 5 observations per village; the table is a sub-table of sectionCA.dta; villageid and cg1 together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on water access at the village level.
13	sectionCG2.dta	*villageid, cg5*	One observation per shock type within each village; there are exactly 12 observations per village; the table is a sub-table of sectionCA.dta; villageid and cg5 together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on shocks at the village level.

14	**sectionCG3.dta**	*villageid, cropid*	One observation per common crop type within each village; there are exactly 4 observations per village; the table is a sub-table of sectionCA.dta; villageid and cropid together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on the four most common crops at the village level.
15	**sectionCH1.dta**	*villageid*	One observation per village; villageid uniquely identifies each observation; observations can be linked to the main interview table by matching on villageid; the table contains information on the market price data collection at the village level.
16	**sectionCH2.dta**	*villageid, ch3*	One observation per food type within each village; there are exactly 47 observations per village; the table is a sub-table of sectionCA.dta; villageid and ch3 together uniquely identify each observation; observations can be linked to the main interview table by matching on villageid; the table includes information on food prices and units at the village level.